AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A system for accurately predicting payload performance at a location remote from an intended launch vehicle or its associated computer controls, comprising:

a.) A Mission Operations Tool for collecting information for payload operations products and support;

[[c.)]] b.) An Orbiter-in-a-Box Tool portable in nature and having an embedded real-time model of launch vehicle avionics on a Cargo PC capable of emulating the launch vehicle environment;

[[b.)]] c.) A Command and Data Tool for creating command and data tables to facilitate communications with the Orbiter-in-a-Box;

d.) A General Purpose Emulator enabling payload customers to create and test mathematical model of their payload capable of use in crew training and vehicle simulations on manned flights, and

a custom designed board to provide shuttle MDM IOM electrical interface to the payload.

Claim 2 (currently amended): The system in claim 1 further comprising a Shared Data Repository wherein data for a plurality of payloads from a Cargo PC may be uploaded to a shared server to enable [[the]] a launching agency to integrate such data into a model of [[all]] intended payloads for a particular flight.

Claim 3 (currently amended): A method for accurately predicting payload performance at a location remote from an intended launch vehicle or its associated computer controls, comprising:

a.) Distributing portable systems such as is described in claim 1 to payload customers for operation on a Cargo PC;

b.) Allowing input from said customers concerning customer payload(s);

c.) Processing said data to form a data set capable of integration by a launching agency to form an accurate and integrated model of [[all]] intended payloads, and

d.) designing a custom shuttle MDM IOM electrical interface for connection to the customer's payload.

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